In the Claims:

Please amend claims 63, 64, 69, 72 and 79 and add new claim 83 as follows.

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1-62 **(canceled)**

63 **(currently amended)** A method for identifying a modulator of binding between a DmGPCR and an allatostatin ~~allostatin~~, comprising the steps of:

(a) contacting an allatostatin ~~allostatin~~ and a composition comprising a DmGPCR in the presence and in the absence of a putative modulator compound;

(b) detecting binding between the allatostatin ~~allostatin~~ and the DmGPCR; and

(c) determining whether binding in the presence of said putative modulator is increased or decreased compared to binding in the absence of said putative modulator compound, whereby putative modulator compounds that increase or decrease binding are identified as binding modulators;

wherein the DmGPCR is DmGPCR4 that binds to allatostatin and that has ~~having~~ a sequence with at least 90% sequence homology to SEQ ID NO:8.

64 **(previously presented)** The method of claim 63 wherein the allatostatin ~~allostatin~~ is a peptide having a selected from the group consisting of SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37 and SEQ ID NO:161.

65 **(withdrawn)** The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:34.

66 **(withdrawn)** The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:35.

67 **(withdrawn)** The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:36.

68 **(withdrawn)** The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:37.

69 **(currently amended)** The method of claim 63 wherein the allatostatin ~~allostatin~~ is a peptide having a sequence of SEQ ID NO: 161.

70 **(previously presented)** The method of claim 63 wherein the DmGPCR4 has a sequence with at least 95% sequence homology to SEQ ID NO:8.

71 **(previously presented)** The method of claim 63 wherein the DmGPCR4 has a sequence with at least 99% sequence homology to SEQ ID NO:8.

72 **(currently amended)** A ~~The~~ method ~~of claim 63~~ for identifying a modulator of binding between a DmGPCR and an allatostatin, comprising the steps of:

(a) contacting an allatostatin and a composition comprising a DmGPCR in the presence and in the absence of a putative modulator compound;

(b) detecting binding between the allatostatin and the DmGPCR; and

(c) determining whether binding in the presence of said putative modulator is increased or decreased compared to binding in the absence of said putative modulator compound, whereby putative modulator compounds that increase or decrease binding are identified as binding modulators;

wherein the DmGPCR is DmGPCR4 that has the sequence of SEQ ID NO:8.

73 **(previously presented)** The method of claim 63 wherein modulation of binding is determined by a gel-shift assay.

74 **(previously presented)** The method of claim 63 wherein modulation of binding is determined by a protein binding assay.

75 **(previously presented)** The method of claim 63 further comprising characterizing one or more properties of the binding modulator.

76 **(previously presented)** The method of claim 75 wherein the one or more properties of the binding modulator are physical, biological or biochemical properties.

77 **(previously presented)** The method of claim 64 wherein the DmGPCR4 has a sequence with at least 95% sequence homology to SEQ ID NO:8.

78 **(previously presented)** The method of claim 64 wherein the DmGPCR4 has a sequence with at least 99% sequence homology to SEQ ID NO:8.

79 **(currently amended)** The method of claim ~~64~~ 72 wherein the allatostatin is a peptide having a ~~DmGPCR4has the~~ sequence ~~of SEQ ID NO: 8~~ selected from the group consisting of SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37 and SEQ ID NO:161.

80 **(previously presented)** The method of claim 64 wherein modulation of binding is determined by a gel-shift assay.

81 **(previously presented)** The method of claim 64 wherein modulation of binding is determined by a protein binding assay.

82 **(previously presented)** The method of claim 64 further comprising characterizing one or more properties of the binding modulator.

83 **(new)** The method of claim 72 wherein the allatostatin is a peptide having SEQ ID NO:161.